REMARKS

Claims 1-29 are pending in the present application. In the Office Action mailed May 13, 2005, the Examiner rejected claims 1, 2, 4-11, 13-18, and 23-29 under 35 U.S.C. §102(b) as being anticipated by Rohe (USP 2,784,758). The Examiner next rejected claims 3, 12, and 19 under 35 U.S.C. §103(a) as being unpatentable over Rohe in view of Duffy et al. (USP 5,685,680). Claims 20-22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Rohe in view of Irimies (USP 5,493,833).

Claim 9 was objected to because there is insufficient antecedent basis for the limitation "the plurality of recesses". Applicant is unclear as to the objection. Claim 9 further defines the welding stud of claim 1 and in line 1 adds "a plurality of recesses". As such, there is clearly sufficient antecedent basis for the recitation of "the plurality of recesses" in line 2. Accordingly, Applicant requests that the object to claim 9 be withdrawn.

The Examiner rejected claims 1, 2, 4-11, 13-18, and 23-29 as anticipated by Rohe. Applicant has amended claim 1 to further define the welding stud called for therein. As amended, claim 1 calls for, in part, a welding stud having a first end constructed to engage a stud welding gun and having an outer diameter that is greater than an outer diameter of a second end of the welding stud. As shown in Fig. 6 of Rohe, the end of the fitting 10 constructed to engage workpiece 7a has a diameter that is greater than the opposite end of fitting 10. Rohe states that "the shoulder flange 16 is of substantially greater face area than the welding flange 18c and is adapted to engage the sheet metal panel without deformation during welding ...." Col. 3, lns. 24-27. That is, the greater diameter of the second end of the fitting distributes the weld load over a greater area of the panel. Accordingly, Rohe teaches a fitting that has a second end which has an outer diameter greater than a first end. As such, that which is called for in claim 1 is not disclosed in Rohe. Accordingly, Applicant believes claim 1, and the claims that depend therefrom, are patentably distinct over Rohe.

Applicant has amended claim 10 to further define the welding stud called for therein. As amended, claim 10 calls for a welding stud having a solid cored body extending from a connector end which is constructed to engage the stud welding gun. As shown in the figures of Rohe, the fitting disclosed therein is a nut. Rohe states that "[s]pacer fitting 10 includes ... a cylindrical bore 13 through which a fastener element such as a bolt or rivet may be passed." Col. 1, ln. 72 to col. 2, ln. 2. That is, if the body of the fitting of Rohe were solid cored as presently called for in claim 10, the fitting would not accept a fastener element such as a bolt. Accordingly, that which is called for in claim 10 is not disclosed in Rohe.

Claim 18 has been amended to call for in part, forming the second end of a welding stud to non-interferingly engage a workpiece. Referring to Fig. 6, Rohe states that the fitting includes "a pilot 25 constituting a continuation of tubular body 12a ... from which it projects so as to be piloted in an aperture 21a in a panel sheet 7a to which the nut is to be mounted." Col. 2, lns. 66-69. That is, the fitting engages a respective recess formed in the part to which it is to be connected. Furthermore, such a construction is required to ensure that the inner bore of the fitting aligns with the opening formed in the workpiece to allow passage of a threaded fastener therethrough. As such, that which is called for in claim 18 is not shown or disclosed in Rohe.

Claim 25 has been amended to further define that which is called for therein. Claim 25 calls for, in part, means for localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of a face of a weld end of a welding stud. As shown in Fig. 5 of Rohe, the fitting disclosed therein includes a bore formed through the center thereof. Weld flange 18 is disposed between a pair of grooves 17 formed in shoulder flange 16. Rohe states that "[o]n either side of welding flange 18c are annular grooves ... for receiving excess weld metal." Col. 3, lns. 22-24. Flange 18c is orientated about the bore of the fitting. That is, the bore and the majority of the flange do not communicate weld power between the fitting and the workpiece. Accordingly, Rohe concentrates the entirety of weld power at welding flange 18. As such, Rohe does not include means for localizing current density generally uniformly about a majority of an area circumscribed by a perimeter of the face of the weld end of the welding stud as called for in claim 25. Accordingly, that which is called for in claim 25 is not shown or disclosed in Rohe.

Applicant has amended claim 28 to further define that which is called for therein. As amended, claim 28 calls for, in part, a welding stud having a body constructed to communicate weld power from a first end to a second end along a majority of the area defined by a perimeter of a cross-section of the body. As shown in Figs. 1 and 5 of Rohe, the fitting disclosed therein is a nut fitting constructed to secure a threaded nut to a workpiece. The nut must include an opening passing therethrough constructed to receive a fastener therein. Accordingly, weld power cannot be communicated from the first end to a second end of the body along a majority of the area defined by a perimeter of a cross-section of the body as called for in claim 28. As such, that which is called for in claim 28 is not shown or disclosed in Rohe.

Claim 29 has also been amended to further define that which is called for therein. Claim 29 further defines the welding stud as a body having a head portion formed proximate a first end and a shank portion extending between the head portion and a second end. Claim 29 further defines the shank portion as having a generally uniform diameter along the length thereof. As

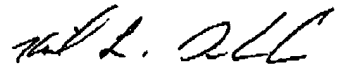
shown in Figs. 5 and 6 of Rohe, flange nut 10a includes a tubular body 12a extending from welding flange 14a. Referring to Fig. 6, Rohe states that the flange nut include a self-locking feature comprising "an annular depression 27 in the reduced neck 12c, in which the central portion of the reduced neck 12c ... is permanently deformed toward the axis of the nut throughout the full circumference thereof." Col. 3, lns. 39-43. That is, the self-locking feature deforms the shank portion of the flange nut such that a threaded fastener passed thereinto is held in place. As such, the fitting of Rohe does not have a shank portion with a generally uniform diameter along the length thereof as called for in claim 29. Accordingly, that which is called for in claim 29 is not shown or disclosed in Rohe.

With respect to the Examiner's rejection of claims 2, 4-9, 11, 13-17, 23-24, and 26-27 under 35 U.S.C. §102(a) as anticipated by Rohe, as these claims depend from claims that are otherwise believed to be patentably distinct over Rohe, claims 2, 4-9, 11, 13-17, 23-24, and 26-27 are patentably distinct over Rohe at least pursuant to the chain of dependency. Additionally, with respect to the Examiner's rejections of claims 3, 12, 19, and 20-22 under 35 U.S.C. §103(a), the claims as presented herein are believed to be patentably distinct over the art of record or combinations thereof. The claims as presented herein call for a welding stud and a method of manufacturing a welding stud that is not taught, suggested, or disclosed in the art of record. Accordingly, Applicant believes the claims presented herein are patentably distinct over the art of record.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-29.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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